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| BSH HOME APPLIANCES CORPORATION<br>INTELLECTUAL PROPERTY DEPARTMENT<br>100 BOSCH BOULEVARD<br>NEW BERN, NC 28562 |             |                      |                     | HANSEN, JAMES ORVILLE |
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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* CHRISTOPH BECKE, SILVIA GERSTNER  
and SIEGFRIED GRASY

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Appeal 2009-005887  
Application 10/816,374  
Technology Center 3600

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Decided: September 23, 2009

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Before JENNIFER D. BAHR, STEVEN D.A. McCARTHY  
and MICHAEL W. O'NEILL, *Administrative Patent Judges.*

McCARTHY, *Administrative Patent Judge.*

DECISION ON APPEAL

1 STATEMENT OF THE CASE

2 The Appellants appeal under 35 U.S.C. § 134 (2002) from the  
3 Examiner's decision finally rejecting claims 9-11, 14, 17, 19 and 20 under  
4 35 U.S.C. § 103(a) as being unpatentable over Bosch-Siemens (DE G 90 14

1 463.5, issued Feb. 7, 1991) and Yamawaki (JP P 2001-074359 A, published  
2 Mar. 23, 2001); and finally rejecting claims 12 and 21 under § 103(a) as  
3 being unpatentable over Bosch-Siemens, Yamawaki and Sasaki (JP 1-  
4 219483, publ. Sep. 1, 1989). We have jurisdiction under 35 U.S.C. § 6(b)  
5 (2002).<sup>1</sup>

6       We AFFIRM.

7       The claims on appeal relate to compartment dividers for a box shaped  
8 body or storage compartment fitted to the door of a refrigerator. (Spec. 4, ll.  
9 1-8). The Appellants assert that the compartment dividers help stabilize  
10 containers which are taller than the containers are wide. That is, the  
11 compartment dividers help prevent such containers from falling over if the  
12 door is opened carelessly. (Spec. 3, ll. 19-24; *see also id.* 1, 1. 23 – 2, 1. 4).

13       Independent claim 9 is typical of the claims on appeal:

14           9       A storage compartment for a refrigerator  
15                   door, the storage compartment  
16                   comprising:  
17                          a box shaped body having a first  
18                          longitudinal wall and a second longitudinal wall  
19                          and a given depth extending substantially  
20                          horizontally between the first and second  
21                          longitudinal walls with a slot extending vertically  
22                          within the first longitudinal wall at least along a  
23                          portion thereof; and

24                          a compartment divider having a rider  
25                          extending downwardly spaced from a wall thereof  
26                          located adjacent to said slot for being received  
27                          within the slot for holding said compartment

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<sup>1</sup> Page citations to Bosch-Siemens, Yamawaki and Sasaki will be to English-language translations entered in the record of the underlying application

1 divider attached within said box shaped body, and  
2 said compartment divider defining a chamber for  
3 holding small items and extending over more than  
4 half of the given depth, wherein the compartment  
5 divider is defined by four connected walls which  
6 do not extend to a bottom of said box shaped body  
7 to define said chamber within the connected walls  
8 for holding items therein, and an open bottom for  
9 allowing items held therein to rest on said bottom  
10 of said box shaped body.

## ISSUES

The Appellants argue claims 9-11, 14, 17, 19 and 20 as a group for purposes of the rejection of those claims under § 103(a). (Br. 6-8). Claim 9 is representative of the group. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2008). With respect to representative claim 9, the Examiner finds that Yamawaki, unlike Bosch-Siemens, discloses a compartment divider having an open bottom. (Ans. 4). The Examiner concludes that it would have been obvious to modify the compartment divider described by Bosch-Siemens so as to have an open bottom as taught by Yamawaki. The Examiner reasons that this proposed modification would enhance the capacity of a chamber defined in the compartment divider to store long items since the items would rest on the bottom of the boxed shape body to which the compartment divider is attached rather than on a bottom wall of the compartment divider itself. (*Id.*)

25 The Appellants contend that Bosch-Siemens teaches away from the  
26 proposed modification. The Appellants argue that the purpose of the  
27 chambers in Bosch-Siemens' compartment divider "is to provide a closed  
28 bin that retains smaller items in a confined receptacle . . ." (Br. 7). The  
29 Appellants further argue that the proposed modification would render the

1 chambers of Bosch-Siemens' compartment divider unsuitable for this  
2 purpose because small items would fall out of the open bottom of the  
3 divider. (*Id.*)

4 One issue on which this appeal turns is:

5 Have the Appellants shown that the Examiner erred in  
6 concluding that the subject matter of representative claim 9  
7 would have been obvious from the teachings of Bosch-Siemens  
8 and Yamawaki because Bosch-Siemens teaches away from the  
9 combination proposed by the Examiner as support for the  
10 conclusion of obviousness?

11 With respect to the rejection of claims 12 and 21, the Examiner finds  
12 that both Bosch-Siemens and Sasaki disclose compartment dividers having  
13 concave profiles. (Ans. 6 and 9). The Examiner infers from this finding that  
14 those of ordinary skill in the art knew to use a device having arcuate concave  
15 surfaces for the purpose of securing complementary shaped articles within a  
16 box-shaped body. (Ans. 9). From this knowledge, the Examiner concludes  
17 that it would have been obvious to provide the compartment divider of  
18 Bosch-Siemens, modified in view of Yamawaki, with concave sidewalls to  
19 provide more stability to items having shapes complementary to the shapes  
20 of the sidewalls. (Ans. 6). The Appellants contend that Sasaki fails to  
21 disclose a compartment divider having sidewalls of concave shape bulging  
22 inwardly toward a chamber defined within the sidewalls and that Yamawaki  
23 teaches away from the proposed modification by disclosing outwardly  
24 bulging cylindrical shapes designed to house tube shaped articles. (Br. 9).

25 Two more issues on which this appeal turns are:

1                   Have the Appellants shown that the Examiner failed to  
2                   articulate reasoning with some rational underpinning sufficient  
3                   to support the conclusion that Bosch-Siemens, Yamawaki and  
4                   Sasaki would have provided one of ordinary skill in the art  
5                   reason to substitute sidewalls having concave shape bulging  
6                   inwardly toward a chamber defined within the sidewalls for the  
7                   planar sidewalls of the compartment divider of Bosch-Siemens?

8                   Have the Appellants shown that the Examiner erred in  
9                   concluding that the subject matter of representative claims 12  
10                  and 21 would have been obvious from the teachings of Bosch-  
11                  Siemens, Yamawaki and Sasaki because Yamawaki teaches  
12                  away from the combination proposed by the Examiner as  
13                  support for the conclusion of obviousness?

14

#### 15                   FINDINGS OF FACT

16                  The record supports the following findings of fact (“FF”) by a  
17                  preponderance of the evidence.

18                  1.       Bosch-Siemens discloses a refrigerator door 10 and a  
19                  removable, trough-like receptacle container 20 arranged on the lower edge  
20                  of the refrigerator door 10. (Bosch-Siemens 4, l. 22 – 5, l. 1). Figures 1-4 of  
21                  Bosch-Siemens depict the receptacle container 20 as being a box shaped  
22                  body having a first longitudinal wall, the upper edge of which is marked 24;  
23                  a second longitudinal wall or end face 28; and a bottom 29. (*See also*  
24                  Bosch-Siemens 5, ll. 14-16). Figure 2 of Bosch-Siemens depicts the  
25                  receptacle container 20 as having a given depth extending substantially  
26                  horizontally (that is, in a vertical direction in the view reproduced in Figure

1        2) between the first and second longitudinal walls. Bosch-Siemens'  
2        receptacle container 20 includes a groove or slot 25 extending vertically  
3        (that is, into the plane of the view reproduced in Figure 2 of Bosch-Siemens)  
4        within the first longitudinal wall. The groove 25 extends over the upper  
5        edge 24 of the first longitudinal wall. (Bosch-Siemens 5, ll. 6-13 and figs. 2  
6        and 3).

7            2.        Bosch-Siemens discloses partitioning the receptacle container  
8        20 with one or more molded parts or compartment dividers 22 inserted into  
9        the receptacle container 20. (Bosch-Siemens 5, ll. 2-5). Each of Bosch-  
10      Siemens' molded parts 22 includes an angle bracket 23. A limb or rider 27  
11      protrudes downwardly from the angle bracket 23 of the molded part 22 and  
12      displaceably engages in the groove 25. (Bosch-Siemens 5, ll. 6-13). Figures  
13      2 and 3 of Bosch-Siemens depict one of the molded parts 22 as including  
14      four connected walls defining compartments or chambers 30 separated by an  
15      additional side wall across the center of the molded part 22. (*See also*  
16      Bosch-Siemens 5, ll. 16-19).

17            3.        Figure 3 of Bosch-Siemens depicts the distance between the  
18      bottom of the molded part 22 and the bottom of the receptacle container 20  
19      as being small in comparison with the height of either the molded part 22 or  
20      the receptacle container 20.

21            4.        Bosch-Siemens teaches the use of the molded parts 22 to  
22      partition the space in the receptacle container 20 “[i]n order to store goods  
23      requiring refrigeration that have different outside contours such as bottles,  
24      tubes, medicine bottles or the like . . .” (Bosch-Siemens 5, ll. 20-23).

25            5.        Bosch-Siemens does not disclose any specific purpose for the  
26      compartments 30. (*See, e.g.*, Bosch-Siemens 4, ll. 4-6 and 5, ll. 16-19).

1       6.   Bosch-Siemens also describes a molded part featuring a blade  
2    31 that lies in a plane extending perpendicularly to its limb 27. (Bosch-  
3   Siemens 5, ll. 16-19). Figures 2 and 4 of Bosch-Siemens depict this molded  
4   part as consisting of an angle bracket 23 and the blade. Figures 4 depicts the  
5   angle bracket 23 as substantially flat, lying along a plane at a slight angle to  
6   the plane defined by the bottom 29 of the receptacle container 20. Figure 2  
7   depicts the profile of the angle bracket 23 is concave, defining a wide end  
8   nearer the limb 27 and curving inwardly on both sides with distance from the  
9   limb 27 down to the width of the blade 31.

10      7.   Yamawaki discloses a small article storage container furnished  
11   in the inside of a refrigerator door. (Yamawaki 4-5, ¶ 0006).

12      8.   Yamawaki's small article storage part includes cylindrical  
13   bodies open at the top for storing small tubes. (*Id.*). Yamawaki describes  
14   connecting at least two of the cylindrical bodies in an hourglass shape. (*Id.*)  
15   Figure 1 of Yamawaki indicates that connecting at least two of the  
16   cylindrical bodies in an hourglass shape implies positioning two cylindrical  
17   portions of the same axial length and diameter next to each other such that  
18   the distance between the axes of the cylindrical portions is less than the  
19   diameter of either of the portions. Figures 1 and 2 depict the hourglass  
20   shape as having concave inner side surfaces.

21      9.   Yamawaki further describes continuously slitting open the  
22   bottoms of two adjacent cylindrical portions connected in an hourglass shape  
23   so that small tubes can be stored in the adjacent cylinder portions.  
24   (Yamawaki 5, ¶ 0010-11 and 7, ¶ 0017).

25      10.   Yamawaki teaches that continuously slitting open the bottoms  
26   of the two adjacent cylindrical portions allows tubes to be stored with their

1 caps pointing upwardly and with their opposite ends resting on the bottom of  
2 the storage container rather than with the caps of the tubes facing  
3 downwardly. (*Id.*) Figure 2 depicts a tube stored in two adjacent cylindrical  
4 portions connected in an hourglass shape as being centered on the concave  
5 inner side surfaces of the hourglass shape.

6        11. Sasaki discloses a refrigerator door 4; a storage shelf 6 attached  
7 to the door 4; and a guardrail 8 which slides horizontally on a guide rail 9 set  
8 on a front wall 7 of the storage shelf 6. (Sasaki 2, 1. 21 – 3, 1. 3).

9        12. Figure 6 of Sasaki appears to show the guardrail 8 as including  
10      a downwardly extending limb that engages the guide rail 9; a blade that lies  
11      in a plane extending perpendicularly to the limb; and an angle bracket  
12      connecting the blade and the limb. The shapes of the angle bracket and the  
13      blade depicted in Figure 6 of Sasaki appear to be similar to the shapes of the  
14      angle bracket 27 and the blade 31 depicted in Figures 2 and 4 of Bosch-  
15      Siemens.

## PRINCIPLES OF LAW

18        “[W]hen a patent claims a structure already known in the art that is  
19        altered by the mere substitution of one element for another known in the  
20        field, the combination must do more than yield a predictable result” to be  
21        non-obvious under § 103(a). *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398,  
22        417 (2007). Similarly, the “mere application of a known technique to a  
23        piece of prior art ready for the improvement” generally will be obvious  
24        unless the application of the technique either is beyond the level of ordinary  
25        skill in the art or the results of applying the known technique to the prior art  
26        would not have been predictable. *Id.*

As a general rule, a reference which “teaches away” from the subject matter of a claim does not support a prima facie case that the subject matter would have been obvious. A reference teaches away from the subject matter of a claim only if “a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994). Prior art does not teach away from claimed subject matter merely by disclosing a different solution to a similar problem unless the prior art also criticizes, discredits or otherwise discourages the solution claimed. See *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004).

## ANALYSIS

14        The Appellants contend that Bosch-Siemens teaches away from  
15 substituting a molded part or compartment divider having an open bottom  
16 for allowing items held in the chamber to rest on the bottom of the box  
17 shaped body in place of the molded parts 22 with closed bottoms described  
18 in Bosch-Siemens. More specifically, the Appellants argue that the purpose  
19 of the chambers in Bosch-Siemens' compartment divider "is to provide a  
20 closed bin that retains smaller items in a confined receptacle . . ." and that  
21 the proposed substitution would destroy this purpose. (Br. 7). The  
22 Appellants provide no citation to identify where Bosch-Siemens might teach  
23 this purported purpose and no such teaching is apparent from Bosch-  
24 Siemens' disclosure. (*See* FF 9). Having failed to identify where Bosch-  
25 Siemens might teach this alleged purpose for the chambers in Bosch-

1 Siemens' molded parts 22, the Appellants have not shown that Bosch-  
2 Siemens teaches away from the proposed combination.

3 Even assuming for the sake of this appeal only that one of ordinary  
4 skill in the art might have recognized that a purpose of the chambers in  
5 Bosch-Siemens' compartment divider is to provide a closed bin that retains  
6 smaller items in a confined receptacle, substituting a molded part or  
7 compartment divider having an open bottom for a molded part 22 with a  
8 closed bottom as described in Bosch-Siemens would not have destroyed this  
9 purpose. Bosch-Siemens depicts the distance between the bottom of the  
10 molded part 22 and the bottom of the receptacle container 20 as being small  
11 in comparison with the height of the receptacle container 20. (FF 3). A  
12 molded part defining a chamber identical in construction to that described in  
13 Bosch-Siemens except for having an open rather than a closed bottom would  
14 have continued to hold small items placed in the chamber so long as the  
15 heights of the items were larger than the distance between the bottom of the  
16 molded part and the bottom of the receptacle container 20.

17 Yamawaki teaches an apparent reason for substituting a molded part  
18 or compartment divider having an open bottom for a molded part 22 with  
19 closed bottoms described in Bosch-Siemens, namely, to allow tubes to be  
20 stored in a space-saving manner with their caps pointing upwardly and with  
21 their opposite ends resting on the bottom of the storage container. (FF 10).  
22 As the Examiner indicates (*see* Ans. 4), substituting a chamber with an open  
23 bottom for a chamber with a closed bottom would enhance the retaining  
24 capacity of the divider by lowering the center of gravity of long items such  
25 as tubes relative to the sidewalls of the chamber. Considering the teachings  
26 of Bosch-Siemens and Yamawaki as a whole, Bosch-Siemens does not teach

1 away from the substitution of a molded part or compartment divider having  
2 an open bottom for a molded part 22 with closed bottoms described in  
3 Bosch-Siemens.

4 Sasaki itself fails to disclose a compartment divider having sidewalls  
5 of concave shape bulging inwardly toward a chamber defined within the  
6 sidewalls. Nevertheless, the teachings of Bosch-Siemens, Yamawaki and  
7 Sasaki would have provided one of ordinary skill in the art reason to apply  
8 an inwardly concave curvature to the sidewalls of open-bottomed molded  
9 parts otherwise similar in structure to the molded parts 22 of Bosch-  
10 Siemens.

11 Bosch-Siemens teaches the use of the molded parts 22 to partition the  
12 space in the receptacle container 20 in order to store goods requiring  
13 refrigeration that have different outside contours such as bottles. (FF 4).  
14 Consequently, one of ordinary skill in the art would have recognized that  
15 molded parts 22 of Figure 3 of Bosch-Siemens were ready for an  
16 improvement which would enable the molded parts to better stabilize tall  
17 items of cylindrical contour such as bottles. Sasaki and Figure 4 of Bosch-  
18 Siemens disclose similar compartment dividers having angle brackets with  
19 arcuate concave sides. (FF 6 and 12). The Examiner finds (*see* Ans. 9), and  
20 the Appellants do not appear to contest, that one of ordinary skill in the art  
21 would have recognized the concave profiles of the compartment dividers of  
22 Sasaki and of Figure 4 of Bosch-Siemens as being capable of stabilizing  
23 complementary shaped articles such as bottles. It would have been obvious  
24 to apply the technique taught by Bosch-Siemens and Sasaki, namely,  
25 providing arcuate concave surfaces for stabilizing bottles, to the sidewalls of

1 the molded parts of Figure 3 of Bosch-Siemens as modified in view of  
2 Yamawaki.

3 Applying the known technique to Bosch-Siemens and Sasaki to the  
4 molded parts of Figure 3 of Bosch-Siemens would have resulted in molded  
5 parts or compartment dividers meeting, in combination with the receptacle  
6 container 20, the limitations of claims 12 and 21. The Appellants provide no  
7 evidence or reason why the application of the known technique would have  
8 been beyond the level of ordinary skill in the art or would have produced  
9 unpredictable results. That the technique was already at work in the molded  
10 part depicted in Figure 4 of Bosch-Siemens does not imply that one of  
11 ordinary skill in the art would not also have reason to apply the technique to  
12 the molded part depicted in Figure 3 of that reference.

13 Yamawaki would not have taught away from the application of the  
14 known technique to Bosch-Siemens and Sasaki to the molded parts of Figure  
15 3 of Bosch-Siemens. Although Yamawaki discloses compartment dividers  
16 with cylindrical bodies defining chambers, the Appellants do not point to  
17 any teaching in Yamawaki criticizing or disparaging compartment dividers  
18 having chambers with inwardly concave sidewalls. On the contrary,  
19 Yamawaki discloses supporting tubes in hourglass shaped chambers having  
20 concave inner side surfaces, albeit concave inner side surfaces on front and  
21 back walls rather than on sidewalls. (FF 8 and 10).

## 22 23 CONCLUSIONS

24 The Appellants have not shown that the Examiner erred in concluding  
25 that the subject matter of representative claim 9 would have been obvious  
26 from the teachings of Bosch-Siemens and Yamawaki because Bosch-

1 Siemens teaches away from the combination proposed by the Examiner as  
2 support for the conclusion of obviousness. Therefore, the Appellants have  
3 not shown that the Examiner erred in rejecting claims 9-11, 14, 17, 19 and  
4 20 under 35 U.S.C. § 103(a) as being unpatentable over Bosch-Siemens and  
5 Yamawaki.

6 The Appellants have not shown that the Examiner failed to articulate  
7 reasoning with some rational underpinning sufficient to support the  
8 conclusion that Bosch-Siemens, Yamawaki and Sasaki would have provided  
9 one of ordinary skill in the art reason to substitute sidewalls having concave  
10 shape bulging inwardly toward a chamber defined within the sidewalls for  
11 the planar sidewalls of the compartment divider of Bosch-Siemens.

12 The Appellants have not shown that the Examiner erred in concluding  
13 that the subject matter of representative claims 12 and 21 would have been  
14 obvious from the teachings of Bosch-Siemens, Yamawaki and Sasaki  
15 because Yamawaki teaches away from the combination proposed by the  
16 Examiner as support for the conclusion of obviousness. Therefore, the  
17 Appellants have not shown that the Examiner erred in rejecting claims 12  
18 and 21 under § 103(a) as being unpatentable over Bosch-Siemens,  
19 Yamawaki and Sasaki.

20

## 21 DECISION

22 We AFFIRM the Examiner's decision rejecting claims 9-12, 14, 17  
23 and 19-21.

24 No time period for taking any subsequent action in connection with  
25 this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R.  
26 § 1.136(a)(1)(iv) (2007).

Appeal 2009-005887  
Application 10/816,374

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AFFIRMED

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